MOBIE Design Challenge 2019 – Oxted School

Considerations

- Technology - Technology was considered when designing our pod construction by ensuring it could accommodate a dishwasher, washing machine and dryer and a fridge. LED Solar panels are included on the roof to provide a sustainable supply of power although the pods can also be attached to the national grid.

- Size - The arrangement of the minimum 4 pods is in a square formation to maximise space from the removed walls.

- Space - The space for our 4-pod construction was divided to make 5 rooms when configured in a square formation. This allows for a kitchen, bathroom, bedroom, office area and lounge. The maximises the 24 sqm floor space by having the partitioning walls between each room.

- Family growth - Family growth can be accommodated for by buying additional bedroom pods which can be added to the right or left of existing pods. Alternatively, additional kitchen and lounge pods can be purchased if preferred.

- Comfort - For the comfort of the pod we tried to maximise the space and keep furnishings to a minimum for example a full-length sofa and a full depth toilet.

- Individuality - The outside of the pod features a minimalist design using the rain screen cladding and glass windows.

- Entertainment - entertainment has been considered with a lounge pod with a sofa and TV. The dining area in the 4-pod formation can be used as a social area and for entertainment.

- Aesthetics - For the aesthetics of the pod we choose a minimalist design to allow the user to fully customise and change to their liking.


Development of concept

These pictures use some of the models that we have made. The early ones were made out of art straws and paper and we have 2 different versions of these as we split up to try and get as many ideas as possible. The left one has also got an extension onto the top so an idea that it could be extended upwards rather than just outwards. We then went on to make a model of 4 square pods which you could attach on top of each other using the steel beams so that they would be fully transparent when no current is put through it. I have included a plan on where each window and window will be.

Floor plan

- To make the most out of the 24 sqm area of the A minimum pods we created a 5th room in the centre of the 4. This allows for a more social layout and a communal space. The bedrooms and the bathroom and both have partitioning walls to create a more private space. However the kitchen and lounge would be open plans to ensure maximum space of the communal area.

- The framing of the four rooms on the outside of the pod will each be made by 40mm to allow for space underneath the floor that would otherwise be wasted. This space could be accessed by doors that open into the communal dining area. A 220mm step would also be made on each of the 4 outer rooms so that they can be easily accessed by draws that open out into the communal dining area. A 220mm step would allow for space underneath the floor that would otherwise be wasted. This space could also be made on each of the 4 outer rooms so that they can be easily accessed.

Configuration

The new two storey house can be expanded to create more living space. Still utilising the unique diagonal walls and the under floor storage we have found more ways to create space. In the first floor four pods you will get a 2 bedroom plus a lounge and a dining area with a central overhead skylight.

In the next two pods you would get a utility in rooms to store lets coats and shoes with a guest toilet in the same space.

After that the next two you would purchase would be bedrooms this may be important for a family that is looking to expand.

Solar panels can be used to power the pods during spring and summer and the pods can also be attached to the national grid so that they can be powered during autumn and winter.

As your children grow older they may decide to move out then you can choose to downsize and have certain modules taken away. This includes that you decide to lose wall that will be then recycled and put on to a new floor plan. The pods that allow you to reach for the skies. The next option you can purchase would be the second story conversion you can move up to the lofty height and let your parents stay downstairs. Alternatively, you could extend the pods upwards rather than just outwards. We then went on to make a model of 4 square pods which you could attach on top of each other using the steel beams so that they would be fully transparent when no current is put through it. I have included a plan on where each window and window will be.